UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,835	06/30/2003	Sylvia Scheu	34874-080 UTIL	2764

64280 7590 12/14/2006

MINTZ, LEVIN, COHN, FERRIS, GLOVSKY & POPEO, P.C.
9255 TOWNE CENTER DRIVE
SUITE 600
SAN DIEGO, CA 92121

EXAMINER	
WONG, NOBLE S	

ART UNIT	PAPER NUMBER
2173	

DATE MAILED: 12/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/611,835	SCHEU ET AL.	
	Examiner	Art Unit	
	Noble S. Wong	2173	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 June 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *30 June 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a) because they fail to show a reference number or character to the user-selectable link as described in the specification in [0029]. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that

explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: Claim 5 states, "the method in accordance with claim 1, wherein the first graphical structure comprises a number of columns in a squared area, and wherein the second graphical structure comprises a number of rows in the squared area intersected by the columns." There is no mention of a squared area, columns, or rows in the specification.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 9 and 10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 9 recites the limitation "the third graphical structure" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Dependent claim 10 incorporates the deficiencies set forth above.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 11-16 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Regarding claims 11-16, although the preamble of the claims recite "an apparatus", the body of the claims include only software program[s] such as GUI, and graphical objects. Claims 11-16 neither include any computer hardware component(s) nor positively recite that the cited software programs are stored on a computer medium that can be read by a machine. As such, claims 11-16 are directed toward software per se, which is non-functional descriptive material and non-statutory.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-4, 6, 7, 11-14, 17-19, and 22 are rejected under 35 U.S.C. 102(e) as being anticipated by Perttunen (US Patent # 7,046,248 B1).

As to claim 1, Perttunen teaches a method for providing access to stored data objects, the method comprising:

- representing a first arrangement of data objects as a first graphical structure in a graphical user interface (GUI) (i.e. the similar arc angle sizes of the different segments, for example segments D and E in Fig. 11);
- concurrently representing a second arrangement of data objects as a second graphical structure in the GUI (i.e. the concentric circles with various radius lengths, for example segment B has the same length as segments I, see Fig. 11);
- a combination of the first and second graphical structures in the GUI defining a plurality of user-selectable graphical objects each providing access to one or more data objects associated with a corresponding portion of the combination of the first and second arrangements (i.e. see col. 2 lines 60-65, and Fig. 11).

As to claim 2, Perttunen teaches the method in accordance with claim 1, wherein the first graphical structure comprises a number of arc-sections of an area, and wherein the second graphical structure comprises a plurality of sectors coaxially arranged in the area (i.e. see claim 1 above and Fig. 11).

As to claim 3, Perttunen teaches the method in accordance with claim 2, wherein the area is circular (i.e. see Fig. 11).

As to claim 4, Perttunen teaches the method in accordance with claim 2, wherein at least one of the plurality of sectors is intersected by one of the arc-sections (i.e. the sector occupied by section I is intersected by sections J, K, and L, see Fig. 11).

As to claim 6, Perttunen teaches the method in accordance with claim 1, wherein the first arrangement is based on a date or time, and the first graphical structure includes an area divided into a number of arc-sections, wherein each arc-section represents a duration of the date or time (i.e. see col. 5 lines 23-28).

As to claim 7, Perttunen teaches the method in accordance with claim 6, wherein the second arrangement is based on a name, type, or size and is related to the date or time of the first

arrangement, and the second graphical structure includes a plurality of sectors coaxially arranged in the area, wherein each sector represents the name, type, or size (i.e. by time and volume, see col. 5 lines 23-28).

As to claim 11, Perttunen teaches an apparatus for accessing data objects from a storage medium (i.e. see col. 6 lines 18-25), comprising:

- a graphical user interface (GUI) comprising (i.e. input interface, see col. 2 lines 60-65)
    - a plurality of user-selectable graphical objects defined by a combination of
        - a first graphical structure representing a first arrangement of data objects and (i.e. the similar arc angle sizes of the different segments, for example segments D and E in Fig. 11)
        - a second graphical structure representing a second arrangement of data objects (i.e. the concentric circles with various radius lengths, for example segment B has the same length as segments I, see Fig. 11),
- wherein each graphical object provides access to one or more data objects associated with a corresponding portion of the combination of the first and second arrangements (i.e. see col. 2 lines 60-65, and Fig. 11).

As to claim 12, Perttunen teaches the apparatus in accordance with claim 11, wherein each graphical object comprises a two-dimensional polygon (see Fig. 11).

As to claim 13, Perttunen teaches the apparatus in accordance with claim 11, wherein the GUI includes a circular area, and wherein the first graphical structure comprises a number of arc-sections of the circular area (i.e. see claim 11 above and Fig. 11).

As to claim 14, Perttunen teaches the apparatus in accordance with claim 13, wherein the second graphical structure comprises a plurality of sectors of the circular area (i.e. see claim 11 above and Fig. 11).

As to claim 17, Perttunen teaches a system for accessing data objects, comprising

- a display (see col. 17 line 66 – col. 18 line 2) providing a graphical user interface (GUI) (i.e. input interface, see col. 2 lines 60-65);
- a storage medium for storing one or more data objects (see col. 17 lines 42-56);

- a processor responsive to instructions stored in an instruction memory (see col. 17 lines 32-42), and configured
  - to represent a first arrangement of data objects as a first graphical structure in the GUI (i.e. the similar arc angle sizes of the different segments, for example segments D and E in Fig. 11), and
  - to represent a second arrangement of data objects as a second graphical structure in the GUI (i.e. the concentric circles with various radius lengths, for example segment B has the same length as segments I, see Fig. 11);
- wherein a combination of the first and second graphical structures in the GUI defines a plurality of user-selectable graphical objects, each graphical object providing access to one or more data objects in the storage medium associated with a corresponding portion of the combination of the first and second arrangements (i.e. see col. 2 lines 60-65, and Fig. 11).

As to claim 18, Perttunen teaches the system in accordance with claim 17, further comprising a user input device for receiving input signals to navigate the GUI for accessing the plurality of user-selectable graphical objects (see col. 18 lines 3-11).

As to claim 19, Perttunen teaches the system in accordance with claim 17, wherein the GUI defines a two-dimensional graphic formed of the plurality of user-selectable graphical objects (see Fig. 11).

As to claim 22, Perttunen teaches a data object access method, comprising:

- representing each of two or more arrangements of data objects as a graphical structure that (i.e. structure one: the similar arc angle sizes of the different segments, for example segments D and E in Fig. 11, and structure two: the concentric circles with various radius lengths, for example segment B has the same length as segments I, see Fig. 11),
- when combined in a graphical user interface (i.e. input interface, see col. 2 lines 60-65),
- define a plurality of user-selectable graphical objects each providing access to one or more data objects associated with a corresponding portion of the combination of the arrangements (i.e. see col. 2 lines 60-65, and Fig. 11).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Perttunen (US Patent # 7,046,248 B1) in view of Chester et al. (Mastering Excel 97).

As to claim 5, Perttunen teaches the method in accordance with claim 1 (see claim 1 above), but does not teach wherein the first graphical structure comprises a number of columns in a squared area, and wherein the second graphical structure comprises a number of rows in the squared area intersected by the columns. Chester et al. teach wherein the first graphical structure comprises a number of columns in a squared area, and wherein the second graphical structure comprises a number of rows in the squared area intersected by the columns (i.e. Fig. 14.1 shows a set of cells in rows and columns that has accessible data when clicking on the cell, see p. 376, 'Chester).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teaching of Perttunen and Chester et al. before him at the time the invention was made, to modify the graphical structures as taught by Perttunen to include structures arranged in rows and columns as taught by Chester et al. with the motivation being to provide a way to display data in rows and columns (see Fig. 14.1 p. 376, 'Chester).

11. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perttunen (US Patent # 7,046,248 B1) in view of Johnston et al. (US Patent # 6,404,444) and in view of Chi et al. (US Patent # 7,043,702 B2).

As to claim 8, Perttunen teaches the method in accordance with claim 1 (see claim 1 above), but does not teach further comprising:

- concurrently representing a third arrangement of data objects as a third graphical structure in the GUI;
- a combination of the first, second and third graphical structures in the GUI defining the plurality of user-selectable graphical objects, each graphical object providing a link to a portion of storage associated with a corresponding portion of a combination of the first, second and third arrangements.

Johnston et al. teach further comprising:

- concurrently representing a third arrangement of data objects as a third graphical structure in the GUI (i.e. the arrangement of cylinder stacks see Fig. 4A-4C);
- a combination of the first, second and third graphical structures in the GUI defining the plurality of user-selectable graphical objects (i.e. see col. 5 lines 48-59, 'Johnston).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teaching of Perttunen and Johnston et al. before him at the time the invention was made, to modify the graphical structures as taught by Perttunen to include a third graphical structure as taught by Johnston et al. with the motivation being to "simplify the interface between a user and large amounts of data present with a modern data processing system." (See col. 1 lines 38-41, 'Johnston).

Chi et al. teach wherein each graphical object providing a link to a portion of storage associated with a corresponding portion of a combination of the first, second and third arrangements (i.e. Fig. 22 shows a link of data in three dimensional relationship, 'Chi).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teaching of Perttunen and Chi et al. before him at the time the invention was made, to modify the graphical objects as taught by Perttunen to include a link in three dimensional structure as taught by Chi et al. with the motivation being to fufill "a need [that] exists [for] a set of visualization

tools which aid in the process of … design, analysis, and comparison of actual and predicted data." (see col. 2 lines 7-10, 'Chi).

As to claim 9, Perttunen in view of Johnston et al. and in view of Chi et al. teach the method in accordance with claim 1, wherein the plurality of graphical objects forms a three-dimensional cylinder in the GUI (i.e. the arrangement of cylinder stacks see Fig. 4A-4C, 'Johnston), wherein the first graphical structure corresponds to arc-segments of the cylinder (i.e. the similar arc angle sizes of the different segments, for example segments D and E in Fig. 11, 'Perttunen), wherein the second graphical structure corresponds to coaxial sectors of the cylinder (i.e. the concentric circles with various radius lengths, for example segment B has the same length as segments I, see Fig. 11, 'Perttunen), and wherein the third graphical structure corresponds to a height of the cylinder (i.e. the arrangement of cylinder stacks see Fig. 4A-4C, 'Johnston).

As to claim 10, Perttunen in view of Johnston et al. and in view of Chi et al. teach the method in accordance with claim 9, wherein the cylinder includes a plurality of sub-sections (i.e. the arrangement of cylinder stacks see Fig. 4A-4C, 'Johnston).

12. Claims 15, 16, 20, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Perttunen (US Patent # 7,046,248 B1) in view of Johnston et al. (US Patent # 6,404,444).

As to claim 15, Perttunen teaches the apparatus in accordance with claim 11, wherein each graphical object is defined by a combination of the first and second graphical structures (see claim 11 above), but does not teach and by a third graphical structure representing a third data object storage arrangement. Johnston et al. teach and by a third graphical structure representing a

third data object storage arrangement (i.e. the arrangement of cylinder stacks see Fig. 4A-4C, 'Johnston).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teaching of Perttunen and Johnston et al. before him at the time the invention was made, to modify the graphical structures as taught by Perttunen to include a third graphical structure as taught by Johnston et al. with the motivation being to "simplify the interface between a user and large amounts of data present with a modern data processing system." (See col. 1 lines 38-41, 'Johnston).

As to claim 16, Perttunen in view of Johnston et al. teach the apparatus in accordance with claim 15, wherein each graphical object comprises a three-dimensional polygon (i.e. the arrangement of cylinder stacks see Fig. 4A-4C, 'Johnston).

As to claim 20, Perttunen teaches the system in accordance with claim 17 (see claim 17 above), but does not teach wherein the processor is further configured to represent a third arrangement of data objects as a third graphical structure in the GUI, and wherein a combination of the first, second and third graphical structures in the GUI defines the plurality of user-selectable graphical objects. Johnston et al. teach wherein the processor is further configured to represent a third arrangement of data objects as a third graphical structure in the GUI, and wherein a combination of the first, second and third graphical structures in the GUI defines the plurality of user-selectable graphical objects (i.e. the arrangement of cylinder stacks see Fig. 4A-4C, 'Johnston).

Therefore, it would have been obvious to one of ordinary skill in the art, having the teaching of Perttunen and Johnston et al. before him at the time the invention was made, to

modify the graphical structures as taught by Perttunen to include a third graphical structure as taught by Johnston et al. with the motivation being to "simplify the interface between a user and large amounts of data present with a modern data processing system." (See col. 1 lines 38-41, 'Johnston).

As to claim 21, Perttunen in view of Johnston et al. teach the system in accordance with claim 20, wherein the GUI defines a three dimensional graphic formed of the plurality of user-selectable graphical objects (i.e. see col. 5 lines 48-59, 'Johnston).

Conclusion

13. The prior art made of record on form PTO-892 and not relied upon is considered pertinent to applicant's disclosure. Applicant is required under 37 C.F.R. 1.111(c) to consider these references fully when responding to this action. The documents cited therein teach three-dimensional graphical structures representing data with links in a GUI.

Inquiries

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Noble S. Wong whose telephone number is (571) 270-1044. The examiner can normally be reached on M-F 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cabeca can be reached on (571) 272-4048. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Noble Wong
12/6/06

Kieu Vu
Primary Examiner